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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

ZINUS, INC. a California Corporation,

Plaintiff,

v.

SIMMONS BEDDING COMPANY, a Delaware corporation, and DREAMWELL, LTD., a limited liability company of Nevada,

Defendants.

AND RELATED COUNTERCLAIMS

Case No. 07-CV-03012-PVT

**DREAMWELL'S MEMORANDUM IN OPPOSITION TO PLAINTIFF ZINUS INC.'S MOTION FOR SUMMARY ADJUDICATION OF NON-INFRINGEMENT**

**Date**: December 11, 2007
**Time**: 10:00 a.m.
**Before**: The Honorable Patricia V. Trumbull
**Location**: Courtroom 5

## Introduction

There is substantial (and indeed undisputed) evidence that while packaging its Mattress-in-a-Box products using its new Swirl Wrap process, plaintiff and counterclaim defendant Zinus, Inc. ("Zinus") practices the claim element of U.S. Patent No. RE 36,142 (the "'142 Patent") that is at issue in this motion, at least under the doctrine of equivalents. Specifically, by placing its compressed mattress assembly onto a rectangular sheet of reinforced fabric, rolling the compressed mattress up inside the fabric, and taping or banding the fabric around the mattress assembly to hold it in place, Zinus performs substantially the same function as the '142 Patent's step of inserting the compressed mattress into a "containment sleeve" (i.e., it prevents or restricts the mattress from expanding during shipping); it performs that function in the same way as the patented step (i.e., by providing a barrier that covers or surrounds a substantial portion of the exposed surface of the mattress and that is sufficiently strong to resist the internal forces that would tend to expand the compressed mattress); and it achieves the same result (i.e., the mattress is effectively prevented or restricted from expanding during shipping).[1] This conclusion is supported both by the testimony of defendant and counterclaim Dreamwell Ltd.'s ("Dreamwell") technical expert, Michael S. DeFranks, and by the testimony of Zinus' President, Scott Reeves.

At the very least, Dreamwell has submitted sufficient evidence to create a triable issue of fact on the highly fact intensive question of infringement under the doctrine of equivalents. Accordingly, Dreamwell respectfully submits that Zinus' Motion for Summary Adjudication of Non-Infringement must be denied.

## Statement of Facts

Background of the '142 Patent Technology

The '142 Patent provides an improved method of packaging for shipment a type of innerspring mattress assembly "wherein each spring is contained within an individual pocket of

[1] Although Zinus' motion purports to dispute Dreamwell's infringement position under the doctrine of equivalents, its argument is based on a fundamental misunderstanding of Dreamwell's position. To be clear, Dreamwell does not assert (as Zinus' straw man argument suggests) that the combination of tape and a cardboard box are the equivalent of the containment sleeve disclosed in the claim element at issue. Rather, it is the combination of Zinus' sheet of reinforced fabric and tape or plastic bands that is the equivalent of the '142 Patent's containment sleeve element.

fabric." [*See, e.g.*, Declaration of Kenneth B. Wilson in Opposition to Plaintiff Zinus, Inc.'s Motion for Summary Adjudication of Non-Infringement ("Wilson Decl."), Exh. 1 ('142 Patent, 4:6-8,[2] 4:43-45, 5:1-3, 5:25-59, 6:9-11)] Such mattresses "are lightweight and bulky and cannot be delivered to the consumer without an undesirably high cost associated with shipment." [*Id.* ('142 Patent, 1:22-24] They "are also inexpensive to manufacture, but their cost to the consumer necessarily reflects a disproportionately high component of shipping charges, thereby adversely affecting the perceived value of the article to the consumer." [*Id.* ('142 Patent, 1:24-28)]

To address these issues, the '142 Patent discloses a method of packaging this particular type of innerspring mattress for shipment in a compressed state, thereby simplifying and reducing the cost of shipping (and therefore potentially the cost to consumers) of the product. [*See id.* ('142 Patent, 1:15-20)]

Prosecution History of the Predecessor of the '142 Patent

On April 4, 1995, inventors C. Edward Steed and Rickey F. Gladney filed the application on which the '142 Patent was based. [Wilson Decl. Exh. 1 ('142 Patent, p. 1)] The original application contained four claims (one independent and three dependent), which sought broad coverage of a method of packaging "compressed articles," rather than innerspring mattresses. [Exh. W-F][3] Accordingly, each of the claims included the following element: "inserting said evacuated tube into a containment sleeve which is dimensioned and configured to retain said compressed article in a compressed state." [*Id.*]

In its initial Office Action, the Patent Office rejected all four claims of the original application as obvious in light of the Broyles prior art reference, which related to a process of putting mattress springs into a cover. [Exh. W-F] In January 1996, the inventors submitted a response to this Office Action in which they amended the subject matter of the claims from a "compressible article" to an "assembly of coiled springs wherein each spring is contained within an individual pocket of fabric." In arguing for the patentability of the amended claims, the inventors pointed out that the patented invention "is directed to reducing the volume of coil

[2] When referring to the '142 Patent, "X:Y-Z" refers to column X, lines Y-Z of the patent.

[3] Citations to exhibits beginning with "Exh. R" or "Exh. W" refer to Exhibits to the Declarations submitted by plaintiff Zinus in support of its motion.

springs and retaining them in a compressed state in a containment sleeve such that the springs can be shipped more economically to remote locations." [*Id.*] They also noted that "[t]here is no containment sleeve disclosed in Broyles which is intended to maintain the innerspring in a compressed state after evacuation. The claims of the instant application all call for such a containment sleeve."[4] [*Id.*]

The applicants also argued in this Amendment that "[i]n an effort to distinguish even more clearly over Broyles, claim 1 has been amended herein to specifically recite a method of packaging *pocketed* coils." [Exh. W-F (emphasis in original)] To support their argument that a mattress assembly in which each spring is contained within an individual pocket of fabric differs significantly from other types of mattresses (such as the Broyles mattress), the applicants submitted the Declaration of co-inventor Ricky F. Gladney. [*Id.* (Declaration of Ricky F. Gladney Under Rule 1.132 ("Gladney Decl."))] In this Declaration, Mr. Gladney detailed the results of tests that he had conducted which established that the use of pocketed coil spring assemblies with the other steps of the claimed method achieved substantial and unexpected benefits over utilizing those steps with the prior art Broyles mattress assembly. [*Id.* (Gladney Decl. at ¶¶ 6-9)]

Notwithstanding these arguments, the Patent Office issued a "final rejection "of all claims in light of the Broyles patent, reasoning in relevant part that "Broyles shows a containment sleeve 43 holding the springs in a compressed state." [Exh. W-F] In response, on or about June 26, 1996, the inventors submitted an Amendment After Final Rejection in which they added the highlighted language to the "containment sleeve" element: "inserting said evacuation tube into a containment sleeve which is dimensioned and configured to retain said *mattress* assembly in a compressed state *for shipment*." [*Id.*] The inventors then added the following two additional limitations to the one independent claim from the original application: "removing said evacuated

[4] In between the two sentences cited above, the applicants also noted that "[a]s taught by applicants' specification the containment sleeve *may* be punctured at the coil destination and controlled, gradual expansion of the springs can be accomplished. Such a method departs considerably from the Broyles teaching." [Exh. W-F (emphasis added)]. Contrary to Zinus' suggestion, this passage does not set identify the primary function of the containment sleeve element, as discussed in more detail below in the Argument section.

tube from said containment sleeve; and puncturing said evacuated tube to allow said mattress assembly in said tube to gradually return to an uncompressed state." The inventors noted that in these new elements, "the structure and functioning of applicants' containment sleeve is more clearly and specifically defined." [*Id.*] They also argued that "[t]here is *no containment sleeve* in Broyles which is meant to be placed over an evacuated tube of compressed springs to indefinitely retain the springs in a compressed state for shipment. . . . There is no suggestion at all in Broyles of using a containment sleeve to retain the springs in compression." [*Id.* (emphasis in original)]

Because the Amendment After Final Rejection added two new steps that were not part of the earlier claims, the Patent Office refused to enter the proposed Amendment. [Exh. W-F] As a result, on August 9, 1996, the inventors filed a continuation application containing the four claims from the June 26, 1996 Amendment, and abandoned the original application. [Exh. W-E]

On October 30, 1996, the Patent Office finally issued a Notice of Allowability confirming that the twice amended claims were patentable. [*Id.*] And on April 22, 1997, the Patent Office issued U.S. Patent No. 5,622,030 (the "'030 Patent"), which included these claims. [*Id.*]

**Prosecution of the '142 Patent Reissue Application**

Roughly four months after the '030 Patent issued, the inventors filed an application for a broadening reissue of the patent, based on errors in the original application. The new application contained a broader version of original independent claim 1 that (among other things) eliminated the limitation of "puncturing the evacuated tube to allow the mattress assembly to gradually return to an uncompressed state," and added 5 new dependent claims that provided variations on the original patented method. [Exh. W-D] One such claim (claim 7) added back "the limitation of puncturing the evacuated tube to allow the mattress assembly to gradually return to an uncompressed state," while another (claim 8) specified "the limitation of severing the containment sleeve retaining the evacuated tube to allow the mattress assembly therein to gradually return to an uncompressed state." [*Id.*]

Of particular relevance for purposes of this motion, the applicants argued that while claim 1 of the '030 Patent required "puncturing said evacuated tube to allow said mattress assembly in said tube to gradually return to an uncompressed state," this element "unnecessarily narrows the

scope of the invention of the '030 patent. Specifically, while puncturing the evacuated tube certainly is one way of allowing the mattress to gradually return to an uncompressed state, it is not the only way. For example, as stated at Column 3, Lines 46-47 of the specification, the customer also can sever containment sleeve 26, or take other steps, to allow the mattress assembly to gradually return to an uncompressed state." [Exh. W-D]

On February 3, 1998 the Patent Office issued an Office Action rejecting broadened claims 1-4 as obvious in light of Broyles, and rejecting claims 5-9 as being dependent on a rejected base claim. [Exh. W-D] In response, the applicants submitted an Amendment in which they made a minor technical modification to claim 1 and rewrote claims 5-8 in independent form. In pointing out the differences between claim 1 and the Broyles reference, the applicants noted again that "Broyles discloses a mattress assembly with an inner spring 9 comprised of exposed, open spring coils 13. In contrast, as stated in claim 1, applicants' claims cover a method of packaging 'a mattress assembly constructed of coil springs wherein each spring is contained within an individual pocket of fabric.'" [*Id.*] Moreover, the applicants noted that "[t]here is no discussion or even remote suggestion in Broyles relating to the *shipment* of the compressed mattress. Consequently, Broyles does not need to use – or even suggest using – a containment sleeve 'to retain said compressed mattress assembly for shipment,' as required in the present claims." [*Id.*]

After considering this Amendment and the argument contained therein (as well as some technical claim modifications made in a Supplemental Amendment), the Patent Office allowed the new set of claims. [Exh. W-D] On March 16, 1999, these claims issued as the '142 Patent.

Summary of the '142 Patent

The '142 Patent contains five independent claims, all of which disclose variations of a method of packaging a specific type of innerspring mattress.

Each claim of the '142 Patent discloses a method for packaging "a mattress assembly constructed of coil springs wherein each spring is contained within an individual pocket of fabric." The process starts with a tube of deformable material, such as plastic. One end of the tube is sealed, and the mattress assembly (which is shorter than the tube of deformable material)

is placed within this tube. In the next step, air is removed or evacuated from the tube, the mattress is compressed, and the surrounding tube or bag is "deformed" around the assembly.

Of particular importance for purposes of Zinus' motion, the next step involves "inserting said evacuated tube into a containment sleeve which is dimensioned and configured to retain said mattress assembly in a compressed state for shipment" (the "containment sleeve element"). When coil spring mattresses like Zinus' Mattress-in-a-Box are compressed, "they naturally want to expand back to their original or near their original height." [Wilson Decl. Exh. 2 (Deposition Transcript of Scott Reeves ("Reeves Depo."), 19:11-19)][5] Accordingly, the '142 Patent includes a containment sleeve that is designed to prevent the compressed mattress from expanding. The "function" of the containment sleeve is clearly set forth in the text of the claim: "to retain said mattress assembly in a compressed state for shipment." This limitation appears in every claim of the '142 Patent.

Each claim goes on to recite the step of "removing said evacuated tube from said containment sleeve." Finally, each claim discloses the step of "allowing said mattress in said tube to gradually return to an uncompressed state" or similar language, without necessarily specifying how this result is to be achieved.[6]

Independent claims 5-8 each contain another step or element. For example, claim 7 further specifies that "said *evacuated tube* is punctured to allow said assembly in said tube to gradually return to said uncompressed state." ['142 Patent, 6:5-7 (emphasis added)] Claim 7 has no requirement that the containment sleeve (as opposed to the evacuated tube) be capable of being "punctured to allow said assembly in said tube to gradually return to said uncompressed state," as Zinus asserts.

In contrast, independent claim 8 expressly includes the additional element that "said *containment sleeve* is severed to allow said mattress assembly in said tube to gradually return to said uncompressed state." ['142 Patent, 6:35-37 (emphasis added)] Claim 8 is the only independent claim that contains this limitation.

[5] When citing to the deposition transcript of Scott Reeves, "X:Y-Z" refers to page X, lines Y-Z.

[6] Rather than phrasing this element as a step, claim 1 phrases this element as a result, as follows: "whereby said mattress assembly in said tube gradually returns to an uncompressed state."

Zinus' Infringing Mattress-in-a-Box Product

According to Zinus' Amended Complaint, in late 2006 Zinus introduced its original Mattress-in-a-Box product in about 100 Wal-Mart stores. [Amended Complaint ¶ 20] In the packaging of that product, the mattress assembly was placed in a plastic "sheath" and compressed. [Wilson Decl. Exh. 2 (Reeves Depo., 18:22-19:5)] The mattress and sheath were then manually rolled up and placed in a plastic sleeve, which Zinus' President referred to as a "polyethylene duffel bag." [*Id.* (Reeves Depo., 14:1-6)] Zinus has confirmed that "the purpose of the polyethylene duffel bag [was] to limit or prevent the expansion of the compressed mattress." [*Id.* (Reeves Depo., 33:7-10; *see also* Reeves Depo., 17:22-18:1 (one purpose of the polyethylene duffel bag was "to contain the roll-up, stop it from expanding"))]

After receiving some correspondence from Dreamwell regarding the original Mattress-in-a-Box product, on June 11, 2007, Zinus filed the Complaint in this action, in which it sought (among other things) a declaration that its original Mattress-in-a-Box product did not infringe the '142 Patent. Dreamwell responded by (among other things) asserting a counterclaim alleging that Zinus' original Mattress-in-a-Box product was packaged using a process that infringed the '142 Patent.

After receiving the counterclaim, Zinus began exploring alternative packaging methods that involved replacing the containment sleeve in the original Mattress-in-a-Box product, apparently hoping to avoid the letter (but not the spirit) of the '142 Patent. One such method involved manually rolling up the mattress and evacuation tube and taping the rolled up assembly, rather than putting it into the polyethylene duffel bag. However, Zinus recognized that this method would not adequately prevent the mattress assembly from expanding during shipping. [Wilson Decl. Exh. 2 (Reeves Depo., 51:20-52:3); Wilson Decl. Exh. 3 (internal Zinus document discussing alternatives to containment sleeve)] Accordingly, it was rejected. [*Id.*]

Instead, Zinus decided to replace the polyethylene duffel bag with what it refers to as the "Swirl Wrap" process. As part of this process, a compressed mattress is placed onto a rectangular sheet of flexible film or fabric that is slightly wider than the mattress, and is manually rolled up into the flexible film. [Wilson Decl. Exh. 2 (Reeves Depo., 28:8-20, 30:11-19)] In one

embodiment of this process, adhesive tape is wrapped around the outside of the fabric roll, adhering to the fabric sheet and (along with the fabric sheet) preventing the compressed mattress assembly from expanding. [*Id.* (Reeves Depo., 20:1-24, 28:21-29:11)] In another embodiment, instead of adhesive tape, plastic stripping is wrapped around the rolled up mattress to secure it. [*Id.* (Reeves Depo., 20:1-24, 38:23-40:4)] The bundled assembly is then placed into a box for shipment. [*Id.* (Reeves Depo., 36:21-37:11)]

Zinus' President described the function of the combination of the flexible film and the tape or bands as follows: "The flexible film and the tape or bands [are] designed to limit the ability of the compressed mattress to expand." [Wilson Decl. Exh. 2 (Reeves Depo., 20:1-4; *see also* 29:24-30:8, 32:24-33:4)] The way in which Zinus perform this function is by providing a barrier (i.e., the combination of the reinforced fabric and the bands of tape or plastic stripping) that covers or surrounds a substantial portion of the exposed surface of the mattress and that is sufficiently strong to restrict the ability of the compressed mattress to expand (i.e., it "holds the mattress"). [*Id.* (Reeves Depo., 20:9-24; *see* also 30:24-31:8 ("The combination of the flexible film and tape or bands limit the compressed mattress from expanding after it was rolled up. . . . [B]oth the flexible film that's reinforced and the strapping material combined together to give us a strong hold on that mattress."); 42:3-22 ("The reinforced flexible film "[m]inimizes the frictional force by minimizing the expansion capabilities"))] And Mr. Reeves confirmed that the result of this combination is that it gives Zinus "a very stable product . . . , one that will not expand." [*Id.* (Reeves Depo., 20:5-24 (""The combination of the film and the tape or the bands [is] effective in limiting the ability of the compressed mattress to expand"))]

## Argument

### I. THERE IS AT LEAST A TRIABLE ISSUE OF FACT REGARDING WHETHER ZINUS' PACKAGING OF ITS SWIRL WRAP PRODUCT INFRINGES THE '142 PATENT UNDER THE DOCTRINE OF EQUIVALENTS

While Dreamwell acknowledges that summary judgment may be as appropriate in a patent case as in any other case, where, as here, the issue is infringement under the doctrine of equivalents, special care must be taken given the fact-intensive nature of this issue. As the Federal Circuit has repeatedly noted, "[i]nfringement under the doctrine of equivalents requires

an intensely factual inquiry." *See, e.g., Toro Company v. White Consolidated Industries, Inc.*, 266 F.3d 1367, 1370 (Fed. Cir. 2001) (citations omitted) (reversing summary judgment of non-infringement based on doctrine of equivalents). Thus, a court may grant summary judgment of non-infringement based on the doctrine of equivalents "only if it discerns no genuine issues of material fact and that no reasonable jury could find equivalence." *Toro, supra*; *see also Warner-Jenkinson v. Hilton Davis Chemical Co.*, 520 U.S. 17, 39 n. 8 (1997). "This standard sets a high hurdle which [the Federal Circuit] does not lightly attempt to surmount. *Vehicular Technologies Corp. v. Titan Wheel Intern., Inc.*, 212 F.3d 1377 (Fed. Cir. 2000).

Zinus has not come anywhere close to clearing this high hurdle. In fact, the overwhelming evidence of record convincingly and indisputably establishes that Zinus' Swirl Wrap process is legally equivalent to containment sleeve element of the '142 Patent, which is the only claim element at issue in this motion.

**A. Construction of the Relevant Terms of the '142 Patent**

It is well established that "[a] determination of infringement requires a two-step analysis." *Warner-Jenkinson, supra*, 520 U.S. at 39-40. As the first step in this analysis, "the Court determines the scope and meaning of the patent claims asserted." *Cyber Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1456 (Fed Cir. 1998) (en banc). Only after the asserted claims are construed can the Court move on to the fact-intensive task of comparing the properly construed claims to the accused device. *Id.* This is true even for claims of infringement under the doctrine of equivalents. *Texas Instruments, Inc. v. U.S. International Trade Com'n*, 805 F.2d 1558, 1562 (Fed. Cir. 1986).

Although Zinus gives lip-service to this standard, it offers no proposed construction of the terms in the element at issue in its motion.[7] Regardless, it is clear from the intrinsic evidence that Dreamwell's proposed construction of the relevant terms is the correct interpretation.

[7] Out of fundamental fairness Zinus should not now be permitted to rebut Dreamwell's proposed claim construction, at least for purposes of this motion, by proffering its own proposed construction of the relevant terms for the first time in its Reply papers.

1. Inserting . . . Into

The common dictionary definition of "inserting" is "to put or set into, between or among." [Wilson Decl., Exh. 6 (American Heritage Dictionary definition)] However, the '142 Patent makes clear that the inventors intended a broader definition of this phrase. In fact, although the claims of the '142 Patent use the term "inserting" when referring to the process of getting the compressed mattress into a containment sleeve, the specification repeatedly and consistently discloses placing the containment sleeve over or around the assembly, rather than dropping the mattress into the containment sleeve. For example, the passage at column 2 lines 9-10 of the '142 Patent refers to the "containment sleeve fitted over the tube" containing the compressed mattress. Similarly, column 2, lines 42-43 disclose that "[a] containment sleeve is fitted over the sealed tube to maintain the article in a compressed state." And the passage at column 3, lines 36-37 discloses that "the containment sleeve is installed over the compressed tube." In fact, nowhere does the patent disclose dropping the compressed mattress assembly into a stationary containment sleeve, as Zinus suggests this term should be interpreted.

Accordingly, in the context of the claims of the '142 Patent, the phrase "*inserting* said evacuation tube *into* a containment sleeve" should be defined as "arranging the evacuation tube and containment sleeve such that the evacuation tube is inside or within the boundaries of the containment sleeve."

2. A Containment Sleeve

The phrase "containment sleeve" should be construed consistent with the ordinary meaning of the two words in the phrase. Thus, "containment" is commonly understood as "the act or condition of containing," which in turn is defined as "holding or keeping within limits; restraining." [Wilson Decl. Exh. 7 (American Heritage Dictionary definition)] A "sleeve" is commonly defined as "a case into which an object or device fits," such as a "record sleeve." [Wilson Decl. Exh. 8 (American Heritage definition)]

The '142 Patent does not suggest any special or contrary definition. Accordingly, a "containment sleeve" should be construed as "a case into which an object or device fits that restrains, holds or keeps the object or device within limits."

**B. A Reasonable Jury Could and Should Find that Zinus' Use of a Sheet of Fabric Wrap and Tape to Contain the Compressed Mattress Is the Legal Equivalent of the Containment Sleeve Claimed in the '142 Patent.**

As the second step in analyzing infringement under the doctrine of equivalents, the fundamental inquiry is whether the accused process contains "elements identical or equivalent to each claimed element of the patented invention." *Warner-Jenkinson v. Hilton Davis Chemical Co.*, 520 U.S. 17, 39-40 (1997). In determining if a step in an accused process is legally equivalent to a step in a claim element, the court should ascertain whether the accused step "matches the function, way, and result of the claimed element, or whether the substitute element plays a role substantially different from the claimed element." *Id.* Thus, "[e]quivalence may be established by a showing by preponderant evidence that an element of an accused device 'does substantially the same thing in substantially the same way to get substantially the same result' as the claim limitation." *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336, 1345 (Fed. Cir. 2002). This analysis is "an intensely factual inquiry," and summary judgment must be denied unless the record "contains no genuine issue of material fact and leaves no room for a jury to find equivalence." *Leggett & Platt, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353, 1357 (Fed. Cir. 2002).

In this case, the record contains more than enough evidence that a reasonable jury could find that Zinus' new Swirl Wrap process is an insubstantial difference from the containment sleeve step of the '142 Patent, and that Zinus performs substantially the same function in substantially the same way to get substantially the same result as the claimed step.[8] Indeed, both Zinus' President and Dreamwell's expert witness have provided testimony confirming this equivalence. Accordingly, Zinus' motion must be denied.

1. Properly Understood, the Function of "Inserting Said Evacuation Tube into a Containment Sleeve" Is to Restrict the Compressed Mattress from Expanding During Shipment.

For purposes of the doctrine of equivalents analysis, the "function" of a claim element should be evaluated by looking at "the primary function or objective of the [element], as

[8] In fact, it could be argued that if the terms "inserting" and "containment sleeve" are properly construed as set forth above, this element could be literally met by the Swirl Wrap.

described in the specification and recited in [the claim(s)]." *Toro Co. v. White Consolidated Industries, Inc.*, 266 F.3d 1367, 1371 (Fed. Cir. 2001). While a claimed element or structure "could have a variety of other functions (as is often the case with structures) . . ., these functions do not become part of the claimed structure unless claimed as such." *Id.*

Here, the primary function or objective of inserting the evacuation tube into the containment sleeve is clearly and expressly recited in the '142 Patent's claims. Specifically, each claim recites that the containment sleeve is "dimensioned and configured to retain said mattress assembly in a compressed state for shipment." Indeed, the use of the term "containment sleeve" to describe the structure confirms that the objective of that component is to restrict or limit the ability of the mattress and evacuation tube from expanding outside the boundaries of the sleeve. [*See* Expert Declaration of Michael S. DeFranks in Opposition to Plaintiff Zinus, Inc.'s Motion for Summary Adjudication of Non-Infringement ("DeFranks Decl."), ¶¶ 12-13]

The specification of the '142 Patent confirms the function or objective recited in the claims. For example, the Summary of the Invention discloses that "[a] containment sleeve is fitted over the sealed tube to maintain the article in a compressed state." [Wilson Decl. Exh. 1 ('142 Patent, 2:42-43)] Similarly, the discussion of the preferred embodiment references that "the coil string [i.e. the mattress assembly] has been compressed and is maintained in a compressed state by a containment sleeve 26." [*Id.* ('142 Patent, 3:22-25); *see also* DeFranks Decl. ¶ 15]

The prosecution history also supports Dreamwell's position that the function of the containment sleeve element is to prevent or restrict the mattress from expanding during shipping. For example, in the response to the initial Office Action rejecting the original claims as obvious based on the Broyles prior art reference, the inventors noted that the patented invention "is directed to reducing the volume of coil springs and retaining them in a compressed state in a containment sleeve such that the springs can be shipped more economically to remote locations." [Exh. W-F] That Amendment further argued that "[t]here is no containment sleeve disclosed in Broyles which is intended to maintain the innerspring in a compressed state after evacuation. The claims of the instant application all call for such a containment sleeve." [*Id.*] In a subsequent amendment, the inventors added the claim elements "removing said evacuated tube from said

containment sleeve; and puncturing said evacuated tube to allow said mattress assembly in said tube to gradually return to an uncompressed state," and asserted that in these new elements, "the structure and functioning of applicants' containment sleeve is more clearly and specifically defined." [*Id.*] They also distinguished their invention from Broyles by arguing that "[t]here is *no containment sleeve* in Broyles which is meant to be placed over an evacuated tube of compressed springs to indefinitely retain the springs in a compressed state for shipment. . . . There is no suggestion at all in Broyles of using a containment sleeve to retain the springs in compression." [*Id.* (emphasis in originals)] There is similar evidence in the reissue file history. [*See* Exh. W-D (Amendment); *see also* DeFranks Decl. ¶ 16]]

In the face of this overwhelming intrinsic evidence supporting Dreamwell's position, Zinus nonetheless attempts to somehow argue that the primary function of the containment sleeve is to provide a structure that can be punctured to allow the controlled influx of air and enable the controlled gradual expansion of the mattress. [Motion at p. 19] To support this argument, Zinus relies exclusively on a single passage from the first proposed Amendment in which the inventors attempt to distinguish their application from Broyles by noting that "[a]s taught by applicants' specification the containment sleeve *may* be punctured at the coil destination and controlled, gradual expansion of the springs can be accomplished." [Exh. W-F (emphasis added)][9] However, as is clear from the passages from the prosecution history cited above, the prosecution history taken as a whole, coupled with the patent claims and specification, clearly establish that while some embodiments of the '142 Patent may include a containment sleeve that can be punctured to permit gradual expansion of the mattress at the destination, the *primary* function of the containment sleeve element as it appears in all of the '142 Patent claims is to prevent or restrict the mattress from expanding during shipment.

[9] To be clear, Zinus has only argued the prosecution history to the extent it bears on defining the proper function for the "function way result" test of equivalence. Zinus has not argued and cannot argue that Dreamwell's doctrine of equivalents claim is barred by the doctrine of prosecution history estoppel. *See, e.g., Aquatex Industries, Inc. v. Techniche Industries*, 419 F.3d 1374 (Fed. Cir. 2005) (prosecution history estoppel applies only when an applicant "makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner," neither of which apply here).

Even the paragraph that Zinus cites to support its position provides confirmation that the primary function of the containment sleeve is to restrict the compressed mattress from expanding during shipping. Indeed, the sentence before the passage quoted by Zinus (which Zinus inexplicably failed to cite) pointed out that "applicants' method . . . is directed to reducing the volume of coil springs and retaining them in a compressed state in a containment sleeve such that the springs can be shipped more economically to remote locations." And immediately following the two sentences cited by Zinus, the inventors noted that "[t]here is no containment sleeve disclosed in Broyles which is intended to maintain the innerspring in a compressed state after evacuation. The claims of the instant application all call for such a containment sleeve." [Exh. W-F] Thus, the language of this paragraph, taken as a whole, actually highlights that the capability to be punctured to permit gradual expansion of the mattress cannot be considered the primary function of the containment sleeve; rather, the primary function, as set forth in this paragraph, is "to maintain the innerspring in a compressed state" for shipping.

The reissue application further undermines Zinus' position. As discussed previously, original claim 1 of the '030 Patent, the pre-reissue version of the '142 Patent, required as the final element "puncturing said evacuated tube to allow said mattress assembly in said tube to gradually return to an uncompressed state." In applying for a broadening reissue, the applicants argued that "[t]his element . . . unnecessarily narrows the scope of the invention of the '030 patent. Specifically, while puncturing the evacuated tube certainly is one way of allowing the mattress to gradually return to an uncompressed state, it is not the only way. For example, as stated at Column 3, Lines 46-47 of the specification, the customer also can sever containment sleeve 26, or take other steps, to allow the mattress assembly to gradually return to an uncompressed state." [Exh. W-D] This passage makes clear that the ability of the containment sleeve to be punctured to allow the mattress to gradually return to an uncompressed state was not a necessary characteristic or function of the containment sleeve structure. Certainly, this capability cannot be considered the primary function of the containment sleeve.

Finally, Zinus' position is contradicted by the language of the claims taken as a whole, particular when viewed under the parameters of the doctrine of claim differentiation. Under

claim differentiation principles, it is well-established that "the usage of a term in one claim can often illuminate the meaning of the same term in other claims. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). Moreover, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Id.*

Here, independent claims 7 and 8 were originally dependent on claim 1, as they each added a limitation to that original claim. Independent claim 7 recites as its additional (and final) element the limitation that "said evacuated tube is punctured to allow said mattress assembly in said tube to gradually return to said uncompressed state." In contrast, independent claim 8 omits the final element of claim 7, but provides as its additional element that "said containment sleeve is severed to allow said mattress assembly in said tube to gradually return to said uncompressed state." And independent claim 1 makes no mention of whether the evacuated tube or the containment sleeve can be punctured.

Applying principles of claim differentiation, it would be inappropriate to read into claim 1 or 7 a requirement that the containment sleeve be severed to allow the compressed mattress to gradually return to its uncompressed state, since that element is expressly recited in claim 8. It would also be inappropriate to read such a requirement into the containment sleeve element of claim 8, because this requirement is already specifically recited as a separate element of that claim. And if the requirement cannot be read into the containment sleeve element of claim 8, or into any part of claim 1 or 7 (both of which contain the containment sleeve element), it follows that this requirement/function cannot be read into the containment sleeve element of any claim. *See Phillips, supra.; see also LG Electronics, Inc. v. Bizcom Electronics, Inc.*, 453 F.3d 1364 (Fed. Cir. 2006) (reversing trial court's claim construction and summary judgment of non-infringement where trial court failed to properly apply claim differentiation principles).

In sum, the '142 Patent and related intrinsic record supports but a single conclusion: the primary function of the containment sleeve element is to restrict the compressed mattress from expanding during shipment. [*See also* DeFranks Decl. ¶¶ 12-15]

2. There Is a Triable Issue of Fact as to Whether the Swirl Wrap Process Performs the Function of Restricting the Compressed Mattress from Expanding During Shipment in the Same Way and with the Same Result as Inserting the Evacuation Tube into the Containment Sleeve in the '142 Patent.

There is substantial (and indeed undisputed) evidence that the function of the Swirl Wrap step of rolling the evacuated tube into a reinforced sheet of fabric and using tape or bands to secure the sheet around the compressed mattress is the same as the containment sleeve element of the '142 Patent: to prevent or restrict the compressed mattress from expanding during shipping. Specifically, Zinus' President, Scott Reeves, verified that "[t]he flexible film and the tape or bands [are] designed to limit the ability of the compressed mattress to expand." [Wilson Decl. Exh. 2 (Reeves Depo., 20:1-4; *see also* 30:24-31:8 )] Similarly, Dreamwell's expert, Michael DeFranks, testified that in his opinion, "the Swirl Wrap process contains steps that perform substantially the same function as the containment sleeve element of the '142 Patent. In particular, the combination of placing a compressed mattress and its surrounding evacuation tube onto a rectangular sheet of reinforced fabric, rolling the mattress up inside the fabric, and applying ribbon shaped tape or plastic stripping to the outside of the fabric to hold the roll in place performs the function of preventing or restricting the compressed mattress from expanding during shipment." [DeFranks Decl., ¶¶ 16-17] This evidence is compelling and more than sufficient to create a triable issue of fact.

There is also substantial and undisputed evidence that the combination of the plastic sheet and tape or bands perform this function in the same way as the containment sleeve; by providing a barrier that covers or surrounds a substantial portion of the exposed surface of the mattress and that is sufficiently strong to resist the internal forces that would tend to expand the compressed mattress. It is clear from the text of the '142 Patent that the way in which the containment sleeve element restricts the expansion of the compressed mattress is by providing a barrier that confines the mattress within its boundaries. [*See* DeFranks Decl., ¶ 18] Similarly Mr. Reeves admitted that the way the combination of the film and the tape or the bands limits the ability of the compressed mattress to expand is by creating a strong barrier that "holds the mattress." [Wilson Decl. Exh. 2 (Reeves Depo., 20:5-24)] He also testified that "[t]he combination of the flexible

film and tape or bands "limit the compressed mattress from expanding after it was rolled up. . . . [B]oth the flexible film that's reinforced and the strapping material combined together to give us a strong hold on that mattress." [*Id.* (Reeves Depo., 30:24-31:8; see also *id.* at 42:10-22 ("The reinforced flexible film "[m]inimizes the frictional force by minimizing the expansion capabilities"))] And Dreamwell's expert confirmed that "the Swirl Wrap process also performs the function of preventing or restricting the compressed mattress from expanding during shipment by providing a barrier that covers or surrounds a substantial portion of the exposed surface of the mattress (in the form of the combination of the reinforced fabric sheet and the ribbon-shaped bands of adhesive tape or plastic stripping) and that is sufficiently strong to resist the internal forces of the compressed mattress." [DeFranks Decl., ¶ 19]

Finally, Zinus cannot dispute that the result of the Zinus process is the same as the containment sleeve element: the compressed mattress is prevented from expanding during shipment. Specifically, Mr. Reeves attested that the combination of the reinforced fabric and tape or bands gives Zinus "a very stable product . . . , one that will not expand." [Wilson Decl. Exh. 2 (Reeves Depo., 20:9-21-2; *see also* 20:5-8 (""The combination of the film and the tape or the bands [is] effective in limiting the ability of the compressed mattress to expand"))] Dreamwell's expert confirmed these results, and further verified that this result is the same result achieved by the containment sleeve element in the '142 Patent. [DeFranks Decl., ¶¶ 20-21]

In light of this evidence, there can be no question that Dreamwell has demonstrated at the very least a triable issue of fact as to whether Zinus' Swirl Wrap process contains the equivalent of the containment sleeve element of the '142 Patent, thereby precluding entry of summary adjudication of non-infringement. [*See* De Franks Decl., ¶ 22]

3. Dreamwell's Doctrine of Equivalents Argument Does Not Violate the All Elements Rule.

Zinus' assertion that the "all elements rule" precludes the scope of equivalency sought by Dreamwell is without merit. Under the all-elements rule, "courts must consider the totality of the circumstances of each case and determine whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the

pertinent limitation meaningless." *LG Electronics, Inc. v. Bizcom Electronics, Inc.*, 453 F.3d 1364, 1380 (2006). Thus, it is appropriate to apply the doctrine, but only where a patentee's theory of equivalence would "entirely vitiate a particular claim element." *Warner-Jenkinson*, 517 U.S. at 29; *see, e.g., Asyst Technologies, Inc. v. Emtrak, Inc.*, 402 F.3d 1188 (Fed Cir. 2005) (noting that "[t]o hold that 'unmounted' is equivalent to 'mounted' would effectively read the 'mounted on' limitation out of the patent"); *Freedman Seating Co. v. American Seating Co.*, 420 F.3d 1350 (Fed. Cir. 2005) (applying all-elements rule where patent claimed "slidably mounted" support member while accused device contained a fixed support member that could not slide, but was rotatable).

Here, Zinus erroneously claims that applying the doctrine of equivalents would effectively eliminate the requirement of "inserting" the mattress into a containment sleeve. However, Dreamwell is not arguing for a scope of equivalents that would omit the step or limitation of putting the compressed mattress into a containment sleeve structure. Indeed, if properly construed in the context of the '142 Patent (i.e., as "arranging the evacuation tube and containment sleeve such that the evacuation tube is inside or within the containment sleeve"), the term "inserting" is broad enough to cover placing the compressed mattress onto the sheet of fabric and rolling the mattress up inside the fabric.

At the very least, there is a triable issue of fact as to whether placing the mattress assembly onto the sheet of fabric and rolling it inside the fabric is a sufficiently insubstantial change to the concept of "inserting said evacuation tube into a containment sleeve" such that, under the totality of the circumstances, the doctrine of equivalents should encompass this step. *See, e.g., LG Electronics,* 453 F.3d at 1380-81 (reversing summary judgment of non-infringement and finding triable issue of fact on doctrine equivalents where claim required all write requests to be performed before the matching read request and in accused device only substantially all write requests were performed before the matching read request, notwithstanding all elements rule; Federal Circuit noted that "[a]lthough such scope would be outside of the claim's literal scope, which is true in any doctrine of equivalents analysis, it would not be inconsistent with the language of the claim").

**C. The Magni Patent Does Not Preclude a Finding that Zinus' Use of a Sheet of Reinforced Fabric and Tape to Contain the Compressed Mattress Is the Legal Equivalent of the Containment Sleeve Claimed in the '142 Patent.**

Zinus mistakenly argues that it cannot infringe the '142 Patent under the doctrine of equivalents because it practices the prior art Magni patent. In fact, this assertion suffers from at least two fatal flaws. First off, the Magni patent does not even arguably disclose one of the critical limitations of the claims of the '142 Patent: it does not disclose packaging "a mattress assembly constructed of coil springs wherein each spring is contained within a single pocket of fabric." [Exh. W-A (Magni patent, 2:4-9)] Moreover, Zinus' Swirl Wrap process admittedly does not practice the Magni patent with respect to the "containment sleeve" element, because it does not mechanically roll up the evacuated tube with a "ribbon shaped film" as disclosed in Magni. [Exh. W-A (Magni patent 5:66, 6:30-31, 6:58-59 (emphasis added) (all specifically referring to "ribbon-shaped film 222"))] A triable issue with respect to either of these flaws would be sufficient to warrant denial of Zinus' motion.

1. Summary of the Magni Patent

U.S. Patent No. 4,711,067, entitled "Method of Packaging a Single Mattress to a Small Size to Be Conveniently Carried," issued to Giuliano Magni of Italy in December 1987 (the "Magni patent"). [Exh. W-A] According to the Summary of the Invention, the claimed method "may be adopted for many types of mattresses, and particularly for those which have an intermediate layer of rubber or a synthetic elastic foam resin and, possibly, outer layers of artificial or natural fibres on the surfaces ensuring the comfort of the user." [Exh. W-A (Magni patent, 2:4-9)] However, there is no disclosure in the Magni patent of applying the method to the type of pocketed coil innerspring mattresses that are the express subject of the claims of the '142 Patent.

Applying the Magni patent method, a mattress was placed into a wrapper and compressed. [Exh. W-A (Magni patent, 3:36-60)] In the embodiment of the Magni patent on which Zinus relies, the next step in the process involves the use of a relatively complex machine containing two semi-mandrels and a rolling cylinder. [*Id.* (Magni patent, 5:36-65, Figures 14-19)] A "reservoir-spool" feeds a "ribbon-shaped film 222" into the machine in the vicinity of the

cylinder and is preferably adhered by pneumatic suction to the mandrel formed by the coupled semi-mandrels. [*Id.* (Magni patent, 5:66-6:, Figure 15)] The compressed mattress assembly is then "inserted between the cylinder 215 and the mandrel made up of the two coupled an rotating semi-mandrels (FIG. 16) in order to start to be squeezed and rolled up (FIG. 17) together with the film 222 which results in contact with the cylinder." [*Id.* (Magni patent, 6:10-17)] Using this machine process, "[t]he rolling-up proceeds with the film 222 only, to form at least one outside convolution[10] 222A surrounding the rolled mattress (FIG 19)." [*Id.* (Magni patent, 6:23-25)] When the machine finishes rolling up the mattress, the end stretch of the ribbon-shaped film is laid down on the outside convolution, and "three adhesive ribbon-shaped strings 230 are applied which are annularly disposed around the rolled mattress to stabilize the configuration of the outside convolution 222A of the ribbon-shaped film." [*Id.* (Magni patent, 6:25-35)] However, the patent notes that the rolling process "may be also operated starting without the film 222 and by inserting it during the rolling up, or even without using the film and applying the ribbon-shaped strings on the wrapper P." [*Id.* (Magni patent, 6:62-65)]

Nowhere does the Magni patent disclose use of a containment sleeve or its equivalent (i.e., a barrier that covers or surrounds a substantial portion of the exposed surface of the mattress and that is sufficiently strong to resist the internal forces that would tend to expand the compressed mattress). It certainly does not disclose a "sheet of 'film 222'" as represented by Zinus at page 14 of its motion; the only disclosure of film is of a "ribbon-shaped" film. And there is no discussion of enabling the mattress to "gradually return to an uncompressed state," as disclosed in each claim of the '142 Patent.[11]

[10] A "convolution" is commonly defined as "a turn of anything coiled." [Wilson Decl. Exh. 9 (dictionary.com definition)] Therefore, in this context, the term "at least one outside convolution" means that the ribbon-shaped film makes at least one turn around the circumference of the rolled-up mattress

[11] Although the Magni patent refers to permitting "the re-expansion of the mattress which, more or less speedily, resumes the thickness intended for use," and allowing the mattress "to re-expand in a very regular way," these passages cannot fairly be read to disclose an objective of or method for "gradually" re-expanding the mattress.

2. There Are Triable Issues of Fact Relating to Zinus' Practicing the Prior Art Defense.

"It is an affirmative defense of the accused infringer to allege and to show that it is practicing the prior art." *Fiskars, Inc. v. Hunt Manufacturing Co.*, 221 F.3d 1318 (Fed. Cir. 2000). To establish this defense, it is not enough for the accused infringer to show (as Zinus has attempted to do) that the accused product or process practices a single element of the asserted claims, or even a subset of the claim elements. *See Fiskars*, 221 F.3d at 1324 (rejecting theory that "if any individual element of the [accused] device is in the prior art, that element cannot be deemed equivalent to any claim element"); *Conroy v. Reebok International, Ltd.*, 14 F.3d 1570 (Fed. Cir. 1994). Rather, the defense only applies where the prior art has components or steps that correspond to each element of the asserted claim or claims, *and* the accused device or method practices each such component or step.

Here, as an initial matter, it is clear that the claims of the '142 Patent incorporate limitations that are part of the Swirl Wrap process but are not disclosed anywhere in the Magni prior art reference. For example, the claims are expressly limited to "[a] method of packaging a mattress assembly constructed of coil springs wherein each spring is contained within an individual pocket of fabric." This is not merely token language; it was added to distinguish the claims over the Broyles prior art, and the Patent Office refused to allow issuance of the patent until this limitation was added. [*See* Exh. W-F] Zinus' Swirl Wrap process unquestionably satisfies this element; Zinus' President testified unequivocally that the Mattress-in-a-Box product that is packaged using the Swirl Wrap process is an innerspring mattress where each spring is contained within its own pocket of fabric. [*See* Wilson Decl Exh. 2 (Reeves Depo., 36:7-15, 60:3-11)] On the other hand, the Magni patent does not disclose packaging of an innerspring mattress with individual pocket coils; indeed, Zinus has not even attempted to argue that this claim limitation is disclosed in Magni.[12] This material difference between the Zinus process and

[12] Zinus' assertion at page 14 of its Motion that Magni discloses that its process "may be adopted for many types of mattresses" falls far short of disclosing a method for packaging the specific type of mattress covered by the '142 Patent.

the Magni process precludes Zinus from relying on the "practicing the prior art defense" to avoid Dreamwell's doctrine of equivalents claim.

Similarly, claims 1-6 of the '142 Patent require "removing said evacuated tube from said containment sleeve, whereby said mattress assembly in said tube gradually returns to an uncompressed state," or minor variants of this language. Claims 7-9 are even more explicit: claim 7 discloses that "said evacuated tube is punctured to allow said mattress assembly in said tube to gradually return to said uncompressed state," while claims 8-9 require that "said containment sleeve is severed to allow said mattress assembly in said tube to gradually return to said uncompressed state." Zinus has not even attempted to demonstrate that these elements are disclosed in the '142 Patent

More fundamentally, however, there is at least a triable issue of fact regarding whether Zinus' Swirl Wrap process even practices the Magni prior art patent with respect to the very element at issue in this motion. In Zinus' Swirl Wrap process, Zinus creates the equivalent of a containment sleeve by placing a rectangular shaped piece of reinforced fabric on the ground that is wider than the mattress, manually rolling the mattress into the fabric, and using tape or plastic bands in conjunction with the fabric sheet to hold the roll together. [*See* DeFranks Decl., ¶¶ 11-22] In an apparent effort to make the Magni reference sound more like the Zinus process, Zinus misrepresents that the Magni process involves "rolling up the compressed mattress with a ***sheet*** of film 222."[13] [Motion at 14 (emphasis added)] However, unlike the Zinus Swirl Wrap process, which uses a reinforced fabric that covers or surrounds a substantial portion of the exposed surface of the mattress and (along with the tape or bands) restricts the compressed mattress from expanding, the Magni patent discloses rolling up the mattress with "a ***ribbon shaped*** film 222" that does not cover or surround a substantial portion of the exposed surface of the mattress. [Exh. W-A (Magni patent 5:66, 6:30-31, 6:58-59 (emphasis added) (all specifically referring to "ribbon-shaped film 222"))] Zinus verified that its rectangular sheet of fabric cannot be considered "ribbon-shaped." [Wilson Decl. Exh. 2 (Reeves Depo., 24:23-25:1)] Moreover, unlike Zinus'

[13] Zinus' mischaracterization of this reference is particularly egregious because Zinus accurately refers to three bands wrapped around the mattress as "ribbon-shaped strings," while in the very same sentence misrepresenting the "sheet of 'film 222'" [Motion at 14]

manual Swirl Wrap process, the Magni process is implemented using a machine that wraps the ribbon shaped film around the compressed mattress.

Accordingly, Zinus cannot rely on the "practicing the prior art defense" because there are material differences between the Zinus Swirl Wrap process and the Magni prior art process, which itself does not practice the elements of the claims of the '142 Patent.

**Conclusion**

For the foregoing reasons, Zinus' Motion for Summary Adjudication of Non-Infringement should be denied.

Dated: November 20, 2007

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